

COMMONWEALTH OF MASSACHUSETTS

DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

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Competitive Metering, Billing and Information Services ) D.T.E. 00-41

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INITIAL COMMENTS OF UTILITY.COM

REGARDING COMPETITION IN BILLING AND METERING

## I. INTRODUCTION AND SUMMARY

Utility.com is pleased to offer the following comments in response to the Notice of Inquiry of the Massachusetts Department of Telecommunication and Energy ("Department") into whether metering, billing, and information services should be unbundled.

Utility.com is a competitive retail electric supplier based in Emeryville, California. The company is currently selling electricity in Massachusetts, California, and Pennsylvania. In addition to those states, the company is also licensed to sell electricity in New York, New Jersey, Connecticut, Rhode Island, Nevada, and Arizona. Utility.com serves residential and small commercial customers.

Utility.com recommends that the Department endorse a combined supplier bill because doing so would expand choices for customers. Regarding metering, Utility.com recommends that the Department endorse competitive metering for large customers, but preserve metering as a monopoly utility service for small customers. Advanced metering is essential to achieving the benefits of electric competition. The experience with competitive metering is that it may serve large customers, but not small. By contrast, utilities can provide advanced metering to small customers at very low cost.

## II. THE DEPARTMENT SHOULD ENDORSE A COMBINED SUPPLIER BILL BECAUSE IT EXPANDS CHOICES FOR CUSTOMERS.

The debate about competitive billing boils down to one simple question: Should customers be given an additional choice?

Today in Massachusetts, customers have just two billing choices: 1) a combined bill from the utility; and 2) separate bills from the utility and the competitive supplier. Customers are not allowed the third option: a combined bill from the

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competitive supplier.

There is simply no reason to deny customers this option. A combined supplier bill is allowed in most other retail access states, including California, Pennsylvania, and Maryland, and New York. (1) There have been no logistical or other problems that suggest that this option is not feasible.

Moreover, customers prefer a combined bill. This has been the market experience of Utility.com and other competitive suppliers. It is also the finding reached by the staff of the New York Public Service Commission based on surveys of participants in the Consolidated Edison retail access program. Eighty percent of survey respondents indicated that they "disliked" receiving two bills. (2)

In addition to the comments set forth above, Utility.com endorses the detailed comments regarding competitive billing submitted by the Competitive Retail Providers.

### III. METERING SHOULD BE COMPETITIVE FOR LARGE CUSTOMERS, BUT NOT FOR SMALL CUSTOMERS.

#### A. Advanced Metering is the Key Enabler of the Competitive Retail Electric Market.

As the Department has pointed out, the deployment of advanced metering is "essential" if customers are to enjoy the full benefits of electric competition.

[T]he installation of metering equipment capable of recording and transmitting hourly load data is an essential component of having customers enjoy the full benefits of a competitive generation market. Only with the installation of such equipment would customers have the necessary information and the proper incentives to adjust their consumption patterns based on price signals. Model Terms and Conditions, D. P. U. /D. T. E. 97-65 (December 31, 1997) p. 58.

In fact, advanced metering is the key enabler of the competitive electric market. It will bring wholesale (and thus retail) prices down by allowing customer price response. It will also make possible a host of new retail products and services, and thus a host of new choices for customers.

#### 1. Advanced Metering will bring Electricity Prices Down.

As the Department pointed out, only when customers have advanced metering will they "have the necessary information and the proper incentives to adjust their consumption patterns based on price signals." This behavior creates savings in two ways. First, the individual customers that shift their consumption patterns save money by moving usage to lower-priced periods. Second, and more important, this behavior creates savings for all customers by bringing market prices down. When some customers shift usage out of peak periods, the peak drops, and prices fall for all customers.

Professor Frank Wolak, a professor of economics at Stanford University and the Chairman of the Market Surveillance Committee of the California ISO, discussed these issues in a report to the Federal Energy Regulatory Commission. (3) Professor Wolak described the importance of fostering customer price response, the effect that price response has on market prices, and the importance and benefits of advanced metering. We have quoted Professor Wolak's report at length below:

A retail competition policy that does not foster the development of a price-responsive hourly final retail demand will not result in a price-responsive hourly wholesale electricity demand. As has been discussed in the two previous MSC reports, a price-responsive hourly wholesale electricity demand will significantly

enhance the competitiveness of the California electricity market...

Without a retail market that has a large fraction of final demand facing an hourly price for each unit of consumption during that hour that is tied directly to the wholesale price of electricity during that hour, it is impossible for electricity suppliers to credibly bid into the day-ahead and real-time markets to reduce their demand in response to high wholesale prices. Currently, the UDCs [utility distribution companies] and other market participants bid price-responsive demands into the PX day-ahead and hour-ahead markets. However, all market participants know that the vast majority of these demand-side bids are not credible commitments to reduce final demand in response to high prices. They understand that because all but a very small fraction of final customers in California purchase electricity at fixed retail prices, final UDC demand does not depend on the value of the hourly PX or ISO energy price. Therefore, any UDC load obligations that are not hedged in the PX day-ahead or hour-ahead markets must be purchased at the real-time ISO price. Consequently, as noted in Section 3, during high periods of high ISO load, generation unit owners are able to set extremely high prices, with the only limit being the ISO's purchase price cap...

A more price-responsive aggregate hourly wholesale electricity demand function will cause all generation owners to bid more aggressively into the wholesale electricity market. These firms know that if they bid too high they will not be dispatched in that hour because a significant amount of load will decide not to consume during that hour in response to high prices. By this logic, it is easy to see that all loads, even those that are not price-responsive on an hourly basis, benefit in terms of lower prices and reduced price volatility from a significant amount of price-responsive demand in the market. This suggests that there are benefits accruing to all consumers from the existence of price-responsive consumers, and that a significant fraction of these benefits are not captured by the customers providing them. The positive externality that price-responsive customers provide to all other customers implies that it may be desirable to subsidize the installation of hourly metering technology. For many customers the private benefit of installing hourly meters does not exceed the private cost, but the social benefit to that customer from installing an hourly meter may exceed his private cost. (4)

As we have observed here in New England, market prices rise quite sharply as the system approaches peak. Thus, even small reductions in demand in those periods can have a very large effect on market prices.

A recent analysis of 17 months experience in the California Power Exchange found as follows:

As demand rises, particularly in peak periods, the price of energy rises relatively rapidly. If demand can be reduced, the price will fall along with it, benefiting not only the customer whose demand is reduced but all other customers who receive the lower prices of spot market energy ...

Between 27,000 MW and 32,000 MW, (1030 high load hours in the 17 month period) the price rises from 3.25 cents to 5.65 cents/kWh. The value of demand reduction in this load range rises through the range but averages about 15 cents per kWh. Over 32,000 MW (the highest 269 load hours), the supply curve rises extremely sharply. The 12.1 cent average price at 35,000 MW is more than double the price of 5.65 cents/kWh at 32,000 MW. In that high peak range, reducing system demand has a value (in reducing prices to everyone) of more than 70 cents per kWh. (emphasis added) (5), (6)

To summarize, when customers have advanced metering, they can see and respond to price signals. When they do, two things happen: 1) the individual customers that shift load save money; and 2) the system peak is reduced, which reduces market prices for everyone. Since prices increase quite rapidly at times of high system peaks, a fairly small reduction in demand can have a very large impact on prices.

## 2. Advanced Metering Enables New Products and Services.

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Advanced metering will also enable new product and service offerings built around price signals.

First, customers will be able to choose from a host of pricing plans, and pick the one that matches their willingness to be exposed to price signals. Some will no doubt choose the type of flat rate plan that is available today and that does not require hourly meters. However, other customers will opt for time-of-use plans, hourly pricing plans, low-priced weekends, and many other types of pricing plans that are impossible without advanced metering.

Customers have made similar choices in other competitive industries. Telephone is the closest example. Because telephone "meters" record the time that each call begins and ends, customers have scores of pricing plan options. Vast numbers of customers have chosen MCI's "5 cent Sundays" plan and other plans that are based on time-of-use.

The airline industry is another example. There too customers can choose from a host of pricing options depending on their willingness to travel during off-peak time periods. Business travelers typically travel mid-week and pay peak prices. Vacation travelers often choose to travel on weekends and pay lower prices.

Second, advanced metering will enable customers to choose from a host of new load control options that will help them to respond to and benefit from price signals. As just one example, Utility.com has developed the Cyberstat, an Internet-enabled thermostat. With this device, customers can program their thermostat over the Internet and change the settings remotely.

While the Cyberstat and similar devices can help customers save money even with basic metering, the savings opportunities expand greatly when advanced metering is in place. With advanced metering, customers could program the thermostats to take advantage of typical, low-priced time periods. And, they could adjust those settings easily, quickly, and remotely during extraordinary price spikes. Also, they could arrange with their competitive supplier to have the thermostat adjusted automatically at agreed-upon price points. The combination of advanced metering, price signals, and devices such as the Cyberstat will give customers a level of control over their electricity costs that has never been possible before.

#### B. Competitive Metering May Benefit Large Customers, but Not Small.

The experience with competitive metering demonstrates that it will not bring the benefits of advanced metering to all customers.

California is the one state in the country that has significant experience with competitive metering. California made metering competitive for customers 20 kW and above on January 1, 1998 and extended competition to all customers on January 1, 1999.

The experience in California is that very, very few customers of any size have moved to competitive metering, and that virtually no small customers have done so. In a recent study of the California competitive metering market, E Source found that "well below one tenth of one percent" of customers are receiving competitive metering. Importantly, "nearly all of them are larger than 50 kW ... [and] a significant percentage ... are larger than 500 kW." (7)

In the UK, metering was made competitive for customers 100 kW and above in 1994. Metering competition was extended to customers below 100 kW in 1998. However, according to the E Source study, competitive metering has largely been limited to customers over 100 kW, with some limited activity for customers between 70 and 100 kW. Smaller customers have not participated. (8)

The reason is simple economics: competitive metering is too expensive for small customers. In a cost study performed for the New York Department of Public Service, Arthur Andersen concluded that the all-in cost of competitive metering would be

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\$26.25 per month for medium and large business customers and \$21.66 per month for residential and small business customers. (9) Given the large differences in average energy bills for the different classes, Arthur Andersen concluded that, at these price levels, large customers would opt for competitive metering service, but that small customers would be unlikely to do so. (10)

#### C. Utility Metering Can Benefit All Customers.

Because utilities serve all customers in the service territory, utilities can employ network meter reading technology, which provides advanced metering at much lower costs. Examples include the network meter reading systems in place today at Kansas City Power and Light and AmerenUE, and being installed at United Illuminating and PECO. The Arthur Andersen study found that these utility systems can provide advanced metering for residential and small commercial customers for just \$2.50 per month, compared to \$21.66 under competitive metering. (11) At \$2.50 per month, advanced metering becomes cost-effective even for small customers.

#### D. Utility Metering as an Enabler of Retail Electric Competition

For the reasons set forth in section III.A above, advanced metering is "essential" if we are to achieve the benefits of retail electric competition. For the reasons set forth in section III. B, competitive metering is unlikely to deliver advanced metering to small customers. However, for the reasons set forth in section III. C, utilities can deliver advanced metering to small customers.

Therefore, it is necessary to preserve the metering monopoly, at least for small customers, in order to achieve the greater goal of retail electric competition. By contrast, moving forward with metering competition for small customers would in fact delay the benefits of retail electric competition. This is a case where less (competition in metering) is more (competition in generation).

Other states have chosen to make metering competitive for large customers, but not for small. For example, New York has limited competitive metering to customers with demands of 50 kW and greater. (12) New Hampshire has indicated that it will make metering competitive only for customers over 100 kW. (13) In Texas, metering will become competitive for business customers in January 2004. However, it will not become competitive for residential customers until the later of September 2005 or the date on which 40% of residential customers are being served by a competitive electric supplier. (14)

#### E. The Need for Regulatory Certainty

Perhaps the single greatest barrier to the installation of advanced metering is uncertainty regarding whether metering will be made competitive. When metering is not competitive, but may become competitive soon, no one can invest in advanced metering. Competitive suppliers cannot provide advanced metering to customers because they are not allowed to. However, utilities do not invest in advanced metering because of the risk that it will become competitive and they will not be able to recoup their investment. The result is paralysis. This is the condition that Massachusetts has been in since the passage of the Electric Restructuring Act in 1997.

Accordingly, the Department should provide clear information to the parties regarding the future of competitive metering. If the Department decides against competitive metering, it should not state that metering will not be competitive for now, but that it might become competitive at some uncertain point in the future. That would simply extend the current state of maximum uncertainty and paralysis.

Instead, for utility advanced metering to move forward, the Department must provide the utilities with certainty -- both as to the minimum time period for which metering will remain a monopoly service and as to how utility investments in advanced metering will be treated should metering ever be made competitive. Without certainty on these points, utilities will not move forward and small customers

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simply will not receive the advanced metering that is "essential" for them to realize the full benefits of retail electric competition.

Of course, the Department's ability to provide certainty is somewhat reduced by the unusual nature of this proceeding. Under section 312 of the electric restructuring act, the Department's role is not to decide whether metering should be competitive, but rather to make recommendations to the Legislature.

However, the Department can do a great deal to provide certainty simply by stating its intentions regarding when it will look again at competitive metering. Of course, the Legislature can always take up the issue at its own initiative, as it can any issue within the Department's jurisdiction. However, given the lopsided votes on metering competition during the legislative debate over electric restructuring, it seems highly unlikely that the Legislature will make metering competitive without a recommendation from the Department. Thus, a strong statement from the Department should give the utilities the certainty they need to move forward and provide the benefits of advanced metering to small customers.

Respectfully submitted,

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1. 1 It appears that New Jersey will soon join the states that allow a combined supplier bill. Last month, a settlement agreement was filed with the New Jersey Board of Public Utilities that, if approved, will allow a combined supplier bill. The agreement was signed by the state's three largest electric utilities, the Ratepayer Advocate, several competitive suppliers, and several utility workers' unions. Settlement Agreement, NJ BPU Docket No. EX99090676 (July 20, 2000).

2. 2 Order Providing for Customer Choice of Billing Entity, NY PSC Case 99-M-0631, p. 5 (March 22, 2000).

3. 3 F. Wolak, Chairman, Market Surveillance Committee of the California Independent System Operator Report on the Redesign of California Real-Time Energy and Ancillary Service Markets, report to the Federal Energy Regulatory Commission, (October 18, 1999). Professor Wolak's report is available at the California ISO's web site: [www2.caiso.com/docs/2000/02/01/200002011036446201.html](http://www2.caiso.com/docs/2000/02/01/200002011036446201.html)

4. 4 Id, pp. 90-91, 97.

5. 5 Marcus, Financial Externalities and "Peak Hogs": New Considerations for Energy Efficiency and Rate Design Policy, JBS Energy, Inc. (2000).

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6. 6 Robert Levin, vice president of the New York Mercantile Exchange, made a similar point in testimony before Congress regarding the Midwest price spikes of June 1998. Referring to the prices of \$7.00 per kWh on June 25th, Mr. Levin testified that "a five percent reduction in demand at that point could have dropped some of these prices 80 or 90 percent." Hearing before the Subcommittee on Energy and Power of the Committee on Commerce House of Representatives, July 15, 1998, Serial No. 105-115, p. 45.
7. 7 Gromer and de Figuerido, On Your Mark, Get Set, Slow: The Developing Market for Competitive Metering, E Source, p. 6 (May 2000).
8. 8 Id, p. 11.
9. 9 Arthur Andersen, Cost Impact of Competitive and Network Meter Reading in New York: Final Report to the New York Department of Public Service, p. 28 (November 1998).
10. 10 Id, p. 33.
11. 11 Id, p. 38.
12. 12 Order Providing for Competitive Metering, NY PSC Case 94-E-0952, p. 20 (June 16, 1999).
13. 13 Order on Requests for Rehearing, Reconsideration and Clarification, NH PUC DR 96-150, Order 22,875 (March 20, 1998).
14. 14 Texas Public Utility Regulatory Act, §39.107.